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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,126	10/06/2001	Mark E. Nikolsky	001	3666

7590 12/09/2004  
MARK E. NIKOLSKY  
36 POPLAR AVENUE  
ORADELL, NJ 07649

EXAMINER

SHIFERAW, ELENI A

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/972,126	NIKOLSKY, MARK E.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Eleni A Shiferaw	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 October 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/14/2001</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

DETAILED ACTION

1. Claims 1-19 are presented for examination.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-5, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hart (US Patent Number: 5,410,739).

As per claim 1, Hart teaches a pilot authentication system comprising:

a processor located in an aircraft and connected to an avionics computer of the aircraft (Col. 1 lines 60-col. 2 lines 5, and Fig. 1 No. 10);

a plurality of sensors connected to the processor and located proximal to the pilot (Col. 2 lines 31-43, and Fig. 1 NO. 16 & 18); and

a transceiver connected to the processor (Fig. 1 No. 32 & 14),

wherein the processor monitors the plurality of sensors and the avionics computer, determines whether an alert condition is present, and sends an alert signal over the transceiver in response to the alert condition (Col. 4 lines 3-14).

As per claim 3, Hart teaches the system, wherein the alert condition is triggered by an unauthorized pilot controlling the aircraft (Abstract).

As per claim 4, Hart teaches the system, wherein the alert condition is triggered by physical distress experienced by the pilot (Col. 4 lines 3-14).

As per claim 5, Hart teaches the system, wherein the alert condition is triggered by the aircraft flying unattended (Col. 1 lines 60-col. 2 lines 5).

As per claim 13, Hart teaches the system, wherein the processor contains a threshold value corresponding to a maximum time period for which the controls of the aircraft can be left unattended (Col. 4 lines 36-68).

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Kinoshita (Pub. No.: US 2001/0052082 A1).

As per claim 17, Kinoshita teaches a method of authenticating a pilot comprising:

providing a fingerprint database of individuals authorized to control an aircraft (Page 5 par. 0080, and Fig. 2 No. 15c &e);

scanning at least one fingerprint of the pilot at the controls of the aircraft (Page 5 par. 0074; fingerprint is entered on fingerprint reader);

comparing the at least one fingerprint to the database of individuals authorized to control the aircraft (Page 5 par. 0080; comparing fingerprint scanned with fingerprint registered); and  
in response to a negative comparison,

generating an alert signal in a processor in the aircraft (Page 6 par. 0092, and Fig. 12 No. S122; generating an alarm); and

transmitting the alert signal from the aircraft to a ground-based monitoring system (Page 6 par. 0092, and Fig. 12 No. S123).

As per claim 18, Kinoshita teaches the method, further comprising:

receiving the alert signal at the ground-based monitoring system (Page 6 par. 0092, and page 2 par. 0020);

processing the alert signal (Page 6 par. 0092); and

activating an alert system in response to the alert signal (Page 2 par. 0024).

As per claim 19, Kinoshita teaches the method, further comprising:

receiving the alert signal at the ground-based monitoring system (Page 6 par. 0092, and page 2 par. 0020);  
extracting at least one fingerprint of the pilot from the alert signal (Page 5 par. [0085-0088]);  
storing the at least one fingerprint in a storage means at the ground-based system (Page 3 par. [0049-0050]); and  
alerting law enforcement authorities (Page 2 par. 0029).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6-8, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hart (US Patent Number: 5,410,739) in view of Kinoshita (Pub. No.: US 2001/0052082 A1).

As per claim 6, Hart teaches all the subject matter as described above.

Hart does not teach fingerprint sensor.

However Kinoshita teaches the system, wherein the plurality of sensors includes at least one fingerprint sensor (Page 5 par. 0074).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the teachings of Kinoshita with in the system of Hart because it would allow to enhance security (Abstract). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Kinoshita with in Hart because authenticating a pilot in combination of biometric authentication and physical distress test would efficiently work when hijacking an airplane or when having a sick pilot.

As per claim 7, Hart and Kinoshita teach all the subject matter as described above. In addition Kinoshita teaches the system, wherein the at least one fingerprint sensor scans at least one fingerprint of an individual controlling the aircraft (Page 5 par. 0074). The rational for combining are the same as claim 6 above.

As per claim 8, Hart and Kinoshita teach all the subject matter as described above. In addition Kinoshita teaches the system, wherein the at least one fingerprint is compared to a database of authorized fingerprints to determine if the pilot is authorized to control the aircraft, said database being located in the processor (Page 5 par. 0080). The rational for combining are the same as claim 6 above.

As per claim 10, Hart and Kinoshita teach all the subject matter as described above. In addition Kinoshita teaches the system, wherein the plurality of sensors includes at least one biometric sensor (Abstract). The rational for combining are the same as claim 6 above.

As per claim 11, Hart and Kinoshita teach all the subject matter as described above. In addition Hart teaches the system, wherein the at least one biometric sensor monitors the heart rate of the pilot (Col. 4 lines 3-14).

8. Claims 2, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hart (US Patent Number: 5,410,739) in view of Murphy (Patent No. US 6,232,874).

As per claim 2, Hart teach all the subject matter as described above. Hart does not explicitly teach the system, further comprising:

- a base station;
- a second transceiver connected to the base station; and
- an alarm system connected to the base station,

wherein the second transceiver receives the alert signal, the base station processes the alert signal, and the base station activates the alarm system in response to the alert signal,

However Murphy teaches a base station (Col. 4 lines 18-29, and col. 19 lines 9-18);

a second transceiver connected to the base station (Col. 4 lines 18-29); and

an alarm system connected to the base station (Abstract, and col. 4 lines 18-29),

wherein the second transceiver receives the alert signal, the base station processes the alert signal, and the base station activates the alarm system in response to the alert signal (Col. 5 lines 33-65, and col. 19 lines 9-18);



Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the teachings of Murphy with in the system of Hart because it would allow to control inappropriate use of an aircraft in a manner that minimizes the possibility of evasion by a (restricted) operator (Col. 1 lines 8-11, and col. 19 lines 9-18).

As per claim 14, Both Hart and Murphy teach all the subject matter as described above. In addition Murphy teaches the system, wherein the base station further comprises a master database of digitized fingerprints of individuals authorized to control at least one aircraft (Col. 2 lines 24-39). The rational for combining are the same as claim 2 above.

As per claim 15, Both Hart and Murphy teach all the subject matter as described above. In addition Murphy teaches the system, wherein the master database can be updated to selectively add or delete digitized fingerprints of additional individuals authorized to control at least one aircraft (Col. 4 lines 31-41). The rational for combining are the same as claim 2 above.

As per claim 16, Both Hart and Murphy teach all the subject matter as described above. In addition Murphy teaches the system, wherein the processor can be updated with records from the master database (Col. 4 lines 31-41). The rational for combining are the same as claim 2 above.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hart (US Patent Number: 5,410,739) in view of Kinoshita (Pub. No.: US 2001/0052082 A1), and in further view of Murphy (Patent No. US 6,232,874 B1).

As per claim 9, Both Hart and Kinoshita teach all the subject matter as described above.

Hart and Kinoshita do not explicitly teach the system, wherein the database of authorized fingerprints can be remotely updated to selectively add and delete digitized fingerprints of individuals authorized to control the aircraft,

However, Murphy discloses modifying or adding data from a remote for aircraft operation (Col. 14 lines 25-47, and col. 19 lines 10-18).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the teachings of Murphy with in the system of Hart and Kinoshita because it would allow to modify authorized users information (Col. 14 lines 25-47). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to add or delete biometric data of authorized users to control the aircraft because it would update the database remotely to individuals authorized to operate an aircraft.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hart (US Patent Number: 5,410,739) in view of Kinoshita (Pub. No.: US 2001/0052082 A1), and in further view of Kitson et al. (Kitson Pub. No.: US 2002/0180586 A1)

As per claim 12, Hart, and Kinoshita teach all the subject matter as described above.

Hart and Kinoshita do not teach the system, wherein the at least one biometric sensor monitors the body temperature of the pilot.

However Kitson teaches a temperature sensor to sense body temperature (Page 6 par. 0057).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the teachings of Kitson within the system of Hart and Kinoshita because it would allow to authenticate a person with body temperature (Page 6 par. 0057). Therefore it would have been obvious to one ordinary skill in the art at the time of the invention was made to employ the teachings of Kitson within the combination system of Hart and Kinoshita because it would authenticate an authorized pilot.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A Shiferaw whose telephone number is 571-272-3867. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

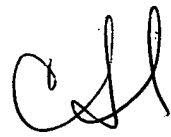
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Eleni Shiferaw  
Art Unit 2136  
Dec. 06 2004

A handwritten signature in black ink, appearing to be 'CSH'.

AU 2136

12/18/04